

## CLAIMS

We claim:

1. A gun configured to accept an efficient 50 caliber gun cartridge having a proximal and distal end for propelling a projectile comprising:

an action;

a barrel; and

a chamber for housing a gun cartridge comprising:

a rimless cylindrical casing having a diameter of approximately 0.688 inches at the distal end and a shoulder at the proximal end angling inward as a means to allow easier feeding in a machine gun;

a primer mounted on said cylindrical casing; and

a neck portion extending distally from the shoulder wherein said neck portion has a mouth for accepting a projectile having a bore diameter of approximately .510 inches;

wherein said casing has a length ranging from 1.9 inches to 2.5 inches measured from the primer to the mouth of said neck; and

wherein said length of said casing is dependant upon water weight volume of said casing, said bore diameter of said mouth, and weight of the projectile.

2. The gun of claim 1, wherein the chamber is configured to house the cartridge and the projectile with a combined maximum length of 4.0 inches.

3. The gun of claim 1, wherein said water weight of said casing in grains multiplied by said bore diameter of said mouth in thousandths of an inch divided by said weight of the projectile in grains is greater than or equal to 110 and less than or

equal to 145.

4. A gun chamber for use with a gun action and barrel, and configured for accepting an efficient 50 caliber gun cartridge having a proximal and distal end for propelling a bullet of a pre-determined weight comprising:

a case section proximal to the action and configured for housing a cartridge case having a diameter of approximately 0.688 inches at the distal end;

a free bore section proximal to the barrel and distal end of the cartridge;

a shoulder section at the proximal end angling inward from the case section;

and

a neck portion located between the shoulder section and the free bore section wherein the neck portion is configured for accepting a cartridge having a mouth with a bore diameter of approximately .510 inches for accepting a bullet;

wherein the case section has a length ranging from 1.9 inches to 2.5 inches;

and

wherein the length of the case section is dependant upon water weight volume of the casing, the bore diameter of the gun barrel, and the weight of the bullet.

5. The gun chamber recited in claim 4, wherein the water weight of the casing in grains multiplied by the bore diameter of the mouth in thousandths of an inch divided by the weight of the bullet in grains is greater than or equal to 110 and less than or equal to 145.

6. The gun chamber recited in claim 4, wherein the shoulder section angles inward at angle of 25 to 30 degrees.

7. The gun cartridge recited in claim 4, wherein the case section, the shoulder section, the neck section and the free bore section have a maximum length of 4.0 inches.